

DISPLAY THIS CARD ON PRINCIPAL FRONTAGE OF WORK



CITY OF PORTLAND

BUILDING PERMIT

This is to certify that MICHAEL F CONLEY

Located At 116 PENNELL AVE

Job ID: 2012-09-5076-SF

CBL: 347-A-002-001

has permission to twelve electric panels on roof, grid connected
provided that the person or persons, firm or corporation accepting this permit shall comply with all of the provisions of the Statutes of Maine and of the Ordinances of the City of Portland regulating the construction, maintenance and use of the buildings and structures, and of the application on file in the department.

Notification of inspection and written permission procured before this building or part thereof is lathed or otherwise closed-in. 48 HOUR NOTICE IS REQUIRED.

A final inspection must be completed by owner before this building or part thereof is occupied. If a certificate of occupancy is required, it must be

Fire Prevention Officer

Code Enforcement Officer / Plan Reviewer

THIS CARD MUST BE POSTED ON THE STREET SIDE OF THE PROPERTY
PENALTY FOR REMOVING THIS CARD

BUILDING PERMIT INSPECTION PROCEDURES

Please call 874-8703 or 874-8693 (ONLY)

or email: buildinginspections@portlandmaine.gov

With the issuance of this permit, the owner, builder or their designee is required to provide adequate notice to the city of Portland Inspections Services for the following inspections. Appointments must be requested 48 to 72 hours in advance of the required inspection. The inspection date will need to be confirmed by this office.

- **Please read the conditions of approval that is attached to this permit!! Contact this office if you have any questions.**
- **Permits expire in 6 months. If the project is not started or ceases for 6 months.**
- **If the inspection requirements are not followed as stated below additional fees may be incurred due to the issuance of a "Stop Work Order" and subsequent release to continue.**

Footings/Setbacks prior to pouring concrete

Close In Elec/Plmb/Frame prior to insulate or gyp

Final Inspection

The project cannot move to the next phase prior to the required inspection and approval to continue, REGARDLESS OF THE NOTICE OF CIRCUMSTANCES.

IF THE PERMIT REQUIRES A CERTIFICATE OF OCCUPANCY, IT MUST BE PAID FOR AND ISSUED TO THE OWNER OR DESIGNEE BEFORE THE SPACE MAY BE OCCUPIED.



PORTLAND MAINE

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Director of Planning and Urban Development
Jeff Levine

Job ID: 2012-09-5076-SF

Located At: 116 PENNELL AVE

CBL: 347- A-002-001

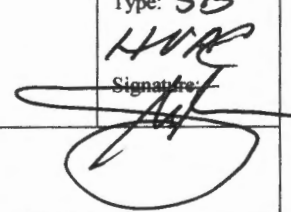
Conditions of Approval:

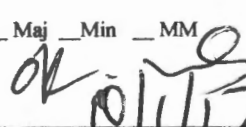
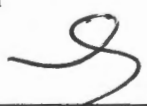
Building

Equipment shall be installed in compliance with the manufacturer's specifications and the UL listing.

City of Portland, Maine - Building or Use Permit Application

389 Congress Street, 04101 Tel: (207) 874-8703, FAX: (207) 8716

Job No: 2012-09-5076-SF	Date Applied: 9/28/2012	CBL: 347- A-002-001	
Location of Construction: 116 PENNELL AVE	Owner Name: MICHAEL F CONLEY	Owner Address: 116 PENNELL AVE PORTLAND, ME 04103	Phone:
Business Name:	Contractor Name: ReVision Energy	Contractor Address: 91 W MAIN ST LIBERTY MAINE 04949	Phone: (207) 221-6342
Lessee/Buyer's Name:	Phone:	Permit Type: BLDG ALT	Zone: R-3
Past Use: Single Family Dwelling	Proposed Use: Same: Single Family Dwelling - to install 12 solar electric panels on existing roof	Cost of Work: \$14,000.00	CEO District:
		Fire Dept: <input checked="" type="checkbox"/> Approved <input type="checkbox"/> Denied <input type="checkbox"/> N/A	Inspection: Use Group: R-3 Type: SB Signature: 
Proposed Project Description: twelve electric panels on roof, grid connected		Pedestrian Activities District (P.A.D.)	
Permit Taken By: Gayle		Zoning Approval	

<p>1. This permit application does not preclude the Applicant(s) from meeting applicable State and Federal Rules.</p> <p>2. Building Permits do not include plumbing, septic or electrical work.</p> <p>3. Building permits are void if work is not started within six (6) months of the date of issuance. False informatin may invalidate a building permit and stop all work.</p>	<p>Special Zone or Reviews</p> <p><input type="checkbox"/> Shoreland</p> <p><input type="checkbox"/> Wetlands</p> <p><input type="checkbox"/> Flood Zone</p> <p><input type="checkbox"/> Subdivision</p> <p><input type="checkbox"/> Site Plan</p> <p><input type="checkbox"/> Maj <input type="checkbox"/> Min <input type="checkbox"/> MM</p> <p>Date: </p>	<p>Zoning Appeal</p> <p><input type="checkbox"/> Variance</p> <p><input type="checkbox"/> Miscellaneous</p> <p><input type="checkbox"/> Conditional Use</p> <p><input type="checkbox"/> Interpretation</p> <p><input type="checkbox"/> Approved</p> <p><input type="checkbox"/> Denied</p> <p>Date:</p>	<p>Historic Preservation</p> <p><input checked="" type="checkbox"/> Not in Dist or Landmark</p> <p><input type="checkbox"/> Does not Require Review</p> <p><input type="checkbox"/> Requires Review</p> <p><input type="checkbox"/> Approved</p> <p><input type="checkbox"/> Approved w/Conditions</p> <p><input type="checkbox"/> Denied</p> <p>Date: </p>
	CERTIFICATION		

I hereby certify that I am the owner of record of the named property, or that the proposed work is authorized by the owner of record and that I have been authorized by the owner to make this application as his authorized agent and I agree to conform to all applicable laws of this jurisdiction. In addition, if a permit for work described in the application is issued, I certify that the code official's authorized representative shall have the authority to enter all areas covered by such permit at any reasonable hour to enforce the provision of the code(s) applicable to such permit.

SIGNATURE OF APPLICANT	ADDRESS	DATE	PHONE
RESPONSIBLE PERSON IN CHARGE OF WORK, TITLE		DATE	PHONE



General Building Permit Application

R-3

If you or the property owner owes real estate or personal property taxes or user charges on any property within the City, payment arrangements must be made before permits of any kind are accepted.

2012 09 5076

Location/Address of Construction: <u>116 Pennell Ave</u>		
Total Square Footage of Proposed Structure/Area	Square Footage of Lot	Number of Stories
Tax Assessor's Chart, Block & Lot Chart# Block# Lot# <u>347 A 002</u>	Applicant: (must be owner, lessee or buyer) Name <u>Revision Energy</u> Address <u>142 Presumpscot St</u> City, State & Zip <u>Portland, ME 04103</u>	Telephone: <u>221-6342</u>
RECEIVED		
Lessee/DBA SEP 28 2012 Dept. of Building Inspections City of Portland Maine	Owner: (if different from applicant) Name <u>Michael Corley</u> Address <u>116 Pennell Ave</u> City, State & Zip <u>Portland, ME</u>	Cost of Work: <u>\$13,305</u> C of O Fee: \$ _____ Historic Review: \$ _____ Planning Amin.: \$ _____ Total Fee: \$ <u>160.00</u>
Current legal use (i.e. single family) <u>single family</u> Number of Residential Units _____ If vacant, what was the previous use? _____ Proposed Specific use: _____ Is property part of a subdivision? _____ If yes, please name _____ Project description: <u>solar electric panels on roof of building</u> <u>12 panels grid connected</u>		
Contractor's name: <u>Revision Energy</u>		Email: _____
Address: <u>142 Presumpscot St</u>		
City, State & Zip: <u>Portland, ME 04103</u>		Telephone: <u>221-6342</u>
Who should we contact when the permit is ready: <u>Jon Hatch</u>		Telephone: _____
Mailing address: _____		

Please submit all of the information outlined on the applicable checklist. Failure to do so will result in the automatic denial of your permit.

In order to be sure the City fully understands the full scope of the project, the Planning and Development Department may request additional information prior to the issuance of a permit. For further information or to download copies of this form and other applications visit the Inspections Division on-line at www.portlandmaine.gov, or stop by the Inspections Division office, room 315 City Hall or call 874-8703.

and I hereby certify that I am the Owner of record of the named property, or that the owner of record authorizes the proposed work and that I have been authorized by the owner to make this application as his/her authorized agent. I agree to conform to all applicable laws of this jurisdiction. In addition, if a permit for work described in this application is issued, I certify that the Code Official's authorized representative shall have the authority to enter all areas covered by this permit at any reasonable hour to enforce the provisions of the codes applicable to this permit.

Signature: J Hatch Date: 9/28/2012

This is not a permit; you may not commence ANY work until the permit is issued





Professional design, installation and service of renewable energy systems

September 26, 2012

City of Portland
389 Congress Street
Portland, ME 04101

RE: ReVision Energy Solar Installation at 116 Pennel Ave

Dear Code Enforcement,

ReVision Energy has been contracted to design and install a solar electric (PV) system at the above address in Portland. This letter is to confirm that all work will be performed by licensed and qualified installers, expert in the field and in compliance with both manufacturer's recommendations and all applicable local and state codes and standards. This also confirms that the roof structure can handle the weight of the panel load, in addition to snow load. The weight of the panels does not change the structural integrity of the building.

ReVision Energy employs licensed engineers, plumbers, and electricians and carries the solar industries highest certifications (NABCEP) in both solar thermal and photovoltaic installation. We're committed to high quality, code compliant work and look forward to working together with the city and the CEO to ensure that all your requirements and needs are met and that our customer ends up with a system that is beautiful, functional and safe.

Electrical and grounding:

All electrical work to be performed by a licensed ME electrician and will conform to NEC 2011 revision as well as NABCEP standards. Specifically, wiring and grounding of the photovoltaic system will be governed by manufacturer's recommendations and article 690. All installed metal components are grounded via the grounding electrode conductor.

If you have any questions or concerns, we'd like to address them as quickly and completely as possible. Please don't hesitate to call or e mail anytime.

Respectfully,

Fortunat Mueller, P.E.
Co-owner
ReVision Energy
(207) 752-6358
fortunat@revisionenergy.com

Bangor
207-570-4222

Liberty
207-589-4171

Portland
207-221-6342

Portsmouth
603-486-7170

www.revisionenergy.com



ARRAY ORIENTATION:
236° (True)

ARRAY PITCH:
22° angle

Full array build-out (24 panels) shown at left. Both upper and lower sections have twelve panels. Panels may be installed in stages to meet increasing fraction of the electric load.

Project Summary

System	Performance	Cost	Incentives	Net Cost
Grid-tied photovoltaic array with CSI modules and Enphase micro-inverters	<ul style="list-style-type: none"> Produce roughly 3,368 kWhrs of clean, renewable energy annually. Offset roughly 4,379 lbs. of CO2 emissions annually. 	\$13,305 Installed	-(\$3,992) 30% Federal Tax Credit -(\$1,700) Rebate from Efficiency Maine	\$7,614

Economic & Environmental Return on Investment

The system we are proposing is guaranteed to pay for itself by harvesting abundant solar energy to replace finite, polluting and increasingly costly fossil fuels. Once you get 100% of your initial investment returned through government financial incentives and energy savings, the system will continue to deliver a revenue stream for decades to come. Plus, the system will eliminate thousands of pounds of CO2 emissions each year, delivering a powerful environmental benefit.

ReVision Energy's mission is to eliminate over-reliance on fossil fuels and the associated emissions. We are succeeding in this mission by installing solar energy systems that are as robust and reliable as traditional mechanical systems. To ensure maximum performance and longevity in a harsh climate, each system is designed by our in-house engineers (Brown, Dartmouth, MIT, UNH) and installed by our experienced team of certified solar professionals. Please join us in the mission to create a clean energy future--we promise to deliver the peace of mind that comes from knowing you have made one of the best investments of your life.



Major System Components

Based on a professional evaluation of your available roofspace, site configuration, and energy demand, ReVision Energy proposes a roof-mounted photovoltaic array of 3.12 kilowatts (nominal).

The system features these major components:

- (12) American-Made Suniva 260 watt monosilicon photovoltaic panels; Optimus Series: 260-60-4-100 or equivalent (<http://www.suniva.com>)
- (12) Enphase Energy M215 microinverters (<http://enphase.com>)
- (1) Enphase Envoy Energy Management Unit, which enables remote data monitoring
- (131) Feet of Iron Ridge extruded aluminum solar mounting rail with hardware
- (1) Flashed Metallic Junction Box

System Operation

Whenever sun shines on the solar electric panels, they will generate direct current (DC) electricity. That DC electricity is converted to AC electricity by individual Enphase inverters, affixed to the underside of each panel. The advantage of microinverters is that the output of the rest of the array is not affected if a portion of panels are shaded.

The AC electricity created by the inverters will then feed directly into the building's load center. Any electric loads (TV, dryer, electronics, etc.) operating while the sun is shining will use available solar electricity, any excess will be exported to the grid.

Whenever the sun is not out, you will continue to purchase grid electricity as you do now. The local utility company will record electricity you feed into the grid. If at the end of the month your generation is greater than your consumption, you will earn a credit on your next bill. You can bank your surplus from month to month for up to a year.

System Diagram



1 - EnPhase Microinverters

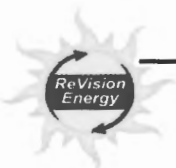
Micro-inverters are installed beneath each rooftop solar panel, maximize energy harvest

2 - Envoy Gateway

Performance of individual panels are send to you as well as ReVision Energy in real-time using the Internet

3 - Enlighten Software

Real-time web based monitoring allows you to evaluate system performance. Also available on mobile devices.





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Receipts Details:

Tender Information: Check , BusinessName: Visa, Check Number: 7701

Tender Amount: 160.00

Receipt Header:

Cashier Id: gguertin

Receipt Date: 10/1/2012

Receipt Number: 48806

Receipt Details:

Referance ID:	8207	Fee Type:	BP-Constr
Receipt Number:	0	Payment Date:	
Transaction Amount:	160.00	Charge Amount:	160.00
Job ID: Job ID: 2012-09-5076-SF - twelve electric panels on roof, grid connected			
Additional Comments: 116 Pennell Ave., Revision Energy			

Thank You for your Payment!

Buying American product
from an American company
just makes sense.



SUNIVA® OPTIMUS™ 260 MONOCRYSTALLINE SOLAR MODULES



NOW AT 16+%
Module Level Efficiency

OPT260-60-4-1B0

The Optimus™ modules consist of Suniva's latest technology: ARTisun® Select. These superior monocrystalline cells are designed and manufactured in the U.S.A. using our proprietary low-cost processing techniques. Engineered with our pioneering ion implantation technology, high power-density Optimus™ modules provide excellent value, performance and reliability.

Certifications:



Engineering Excellence

- Built exclusively with Suniva's highest-efficiency ARTisun® Select cells, providing one of the highest power outputs per square meter at an affordable cost
- Suniva's state-of-the-art manufacturing facility features the most advanced equipment and technology
- Suniva® is a U.S.-based company spun out from the Georgia Tech University Center of Excellence in Photovoltaics (one of only two such research centers in the U.S.)
- Ask about our Buy America compliant modules

Features

- Delivers module efficiency conversion of 16.0+%
- Offers one of the tightest power tolerances in the industry
- Resists corrosion using marine grade aluminum with anodized coating
- More power per module saves on Balance of System costs; Ask about our Balance of Systems Solutions (BOSS)
- Provides industry-leading 25-year warranty (10 year warranty on workmanship and materials; 25 year linear performance warranty delivering 80% power at STC)

Quality & Reliability

Suniva® Optimus™ modules are manufactured and warranted to our specifications assuring consistent high performance and quality worldwide. Our specifications include:

- Rigorous quality management
- Performance longevity with advanced polymer backsheet
- Mechanical and electrical tests and visual inspections
- System design services available
- Produced in an ISO 9001:2008 certified facility

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11-13-12 GF SC PASS FINAL